DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: **OFFICE:** Atlanta, Georgia

DATE: January 7, 2003

FROM: Frank L. Danchetz, P.E., Chief Engineer

TO: Planning, Preconstruction, Operations, District Engineers

SUBJECT: **Design Guidance**

This guidance is provided to further clarify the application of the various interim and approved design guides currently in circulation and is to be used in applying Context Sensitive Solutions to the roadway typical section. It also reflects the Department's continuing effort to balance the transportation needs of our state with the desires of the local communities affected.

I. LANE WIDTHS

The Department's standard for lane widths is 12 feet, except as allowed herein.

In applying these lane width guidelines, two applications are defined; the confined, restricted right of way urban area, "Urban Area Type A" and the less confined "Urban Area Type B". Generally, no single defining criteria, such as speed limit or functional classification, determines lane widths. Instead, a combination of characteristics define the applicable areas. The characteristics below are representative of and define urban area types, and, in turn, determine the minimum allowable lane width:

Urban Area Type A

- ✓ Speed limit 35 mph or less
- ✓ Curb and sidewalk
- ✓ Central Business District (CBD)/historic districts/overlay streetscape zoning/corridor continuity characteristics
- ✓ Building face to curb typically ≤ 10'
- ✓ Low truck %

Lane widths may be reduced to no less than 11'-0".

Urban Area Type B

- ✓ Speed limit greater than 35 mph but not greater than 45 mph
- ✓ Curb and sidewalk
- ✓ Less confined, less urbanized area, generally automobile dependent, numerous driveways
- ✓ Building face to curb typically > 10'

Lane widths will be 12'-0". Design variances will be required for lane width reductions.

The above criteria shall be utilized in determining lane widths in urban areas.

II. RAISED/DEPRESSED/FLUSH MEDIANS

(By memo first issued by Chief Engineer Danchetz, July 20, 2000)

Several factors will be considered when determining the applicable median treatments, such as classification of roadway, number of lanes, base year traffic, design year traffic, posted speed limit, design speed limit and accident/crash data. Below are the roadway classifications and the median guidelines for those classifications.

A. Urban Interstates

1. All urban interstates will have positive barrier separation.
2. All urban multi-lane roadways interchanging with the interstate will have a raised median for a distance of 1,000 feet from the ramp termini or the first major intersection.

B. Rural Interstates

1. All rural interstates will require a depressed median as specified in the green book or positive barrier separation in areas of right-of-way restrictions.
2. All rural multi-lane roadways interchanging with the interstate will have a raised median for a distance of 1,000 feet from the ramp termini or the first major intersection.

C. Arterials

1. All arterials with design speeds or posted speeds ≤ 45 mph and base year traffic volumes ≤ 18,000 and design year traffic volumes ≤ 24,000 will require a five lane section (flush median).
2. All arterials with design speeds or posted speeds ≤ 45 mph and base year traffic volumes ≤ 18,000 and design year traffic volumes ≥ 24,000 will require a five lane section (flush median). The project will be designed to incorporate a future 20-foot raised median or preferably a 24-foot raised median depending on impacts. Right-of-way will be purchased for footprint determined by raised 20/24-foot median typical section. Monitoring of accidents and traffic volumes on a five year cycle by the Safety Engineer in the Office of Traffic Operations will determine the need and implementation of a raised median section.
3. All urban arterials with base year traffic volumes ≥ 18,000 ADT and design year traffic volumes ≥ 24,000 ADT and design speed ≤ of 45 mph will have a 20-foot raised median or preferably a 24-foot raised median depending on impacts.
4. Raised medians will be constructed on multi-lane facilities at intersections that include one of the following:
   a) High turning volumes relating to 18,000 ADT (base year) and 24,000 ADT (design year)
   b) Accident rate greater than the state average for its classification
   c) Excessive queue lengths (as determined by District Traffic Engineer) in conjunction with excessive number of driveways.
5. All arterials with posted speeds ≥ 55 mph or design speeds ≥ 50 mph will require the design of a 24-foot raised median, 44-foot depressed median or a positive barrier system depending upon functional classification, the type of development along the corridor, type of access management and right of way impacts.
6. All multi-lane facilities with three or more lanes in each direction shall include positive separation of opposing traffic using a median. Type of median shall depend on guidelines stated above.

D. GRIP Corridors

1. All GRIP corridors with design speeds ≤ 45 mph and base year traffic ≤ 18,000 and design year traffic ≤ 24,000 will require a five lane flush median.
2. All GRIP corridors with design speeds ≤ 45 mph and base year traffic ≥ 18,000 or design year traffic ≥ 24,000 will require a 20-foot raised median minimum or preferably a 24-foot raised median.
3. All GRIP corridors with design speeds ≥ 50 mph will be designed with a 44-foot depressed median.

E. Medians at Pedestrian Crossings

Locations where a significant number of pedestrians are likely to be crossing the roadway, especially at mid-block, may warrant positive separation of opposing traffic using a median for pedestrian refuge.

III. ROADSIDE

A. Sidewalks (By memo first issued by Tom Turner, September 20, 2001 and revised herein.)

Sidewalks will be provided wherever curb and gutter is utilized, i.e., urban sections.

Ga Std's 6050, 9031J, & 9031W are no longer available and their use should be discontinued immediately. These details are being revised to comply with ADA Guidelines. Until further notice, all persons preparing construction plans for the Department must use "Special Details" for Wheelchair Ramps, Sidewalks, Driveways and Detectable Warning Surfaces. These details may be obtained by contacting Eugene Hopkins at 404-656-5409 or by email: eugene.hopkins@dot.state.ga.us. All persons should verify that they have copies of the latest version of the details prior to submission of final plans.

The current interim details for Concrete Sidewalk and Curb Cut Ramps shows the section which has a 2' Typical, 6' Desirable dimension from the back of the curb to the sidewalk as the preferred section. A 16 foot shoulder is recommended when "space" permits the use of a 6 foot grass strip. This revision should also be reflected on Project Management Agreements as follows:

"The Local Government shall be responsible for all costs for the continual maintenance and operations of any and all sidewalks including the grass strip between the curb and gutter and the sidewalk."

B. Pedestrian and Streetscape

(*Pedestrian and Streetscape Guide* - Draft only at this time.)

These guidelines are to be used for designs that will incorporate pedestrian and streetscape features.

C. Rumble Strips (By memo first issued by Tom Turner, November 27, 2000.)

Rumble strips are to be used as follows:

- Rumble strips are to be the milled-in type
- Dimensions - 16" width, 7" length, ½" depth, 5" space between
- Skip Pattern – 28' of rumble strips, 12' clear space
- Placement
    1. Interstate/Freeways (where bicycles are NOT allowed) – continuous
    2. Multi-lane Rural (>50 mph) – Skip pattern
    3. Two-lane Rural Section (>400 ADT & >50 mph)
        a. 2' Shoulder – No rumble strip
        b. ≥ 4' Shoulder – Skip pattern

Attached is a drawing showing the dimensions of the proposed milled rumble strips. Also attached are drawings of a 4' and 6.5' shoulder each showing the placement of the rumble strip. The 6.5' shoulder is being proposed as a replacement to both the currently utilized 6' and 8' shoulders. The 6.5' shoulder will accommodate bicyclists based on the AASHTO Guidelines and will be the one shoulder consistently used on multi-lane widening and/or reconstruction projects with rural shoulders.

D. Bicycle Accommodation (By memo first issued Commissioner Wayne Shackelford, March 1, 2000.)

The Department will accommodate bicycling improvements into all widening and reconstruction projects when there is an existing bikeway or if the project is on an approved Bike Route.

IV. Any variances to these guidelines will require the recommendation of the Director of Preconstruction and the approval of the Chief Engineer.

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Attachments